

# The fatal disease of the Byzantine Emperor Andronicus III Palaeologus (1328–1341 AD)

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*J R Soc Med* 1997;90:106–109

## SUMMARY

The Byzantine Emperor Andronicus III Palaeologus (1328–1341 AD) died at age 45 from a disease the nature of which is unknown. However, light is thrown on this by the texts of the Byzantine historians John Cantacuzenus (who became Emperor under the name of John VI) and Nicephorus Gregoras, both of whom belonged to the immediate entourage of the Emperor. From their descriptions of the symptoms it appears that Andronicus suffered from malaria for 20 years (1321–1341). The coma that preceded the Emperor's death was probably a cerebral manifestation of chronic malaria.

## INTRODUCTION

Byzantine historians and chroniclers describe many diseases of leading figures of their state and Church, especially the emperors. These constitute a source of valuable information about the clinical application of medicine during the Byzantine period (324–1453 AD).

Among these detailed descriptions is the case of Andronicus III Palaeologus, whose fatal disease has until now been unknown. Study of the texts of the historians John Cantacuzenus (who was Emperor under the name of John VI before he wrote his memoirs) and Nicephorus Gregoras reveals the cause of this illness.

Andronicus III, called 'the Younger', was the eldest son of Michael IX and grandson of Andronicus II, 'the Older'. After the death of his father (1320 AD), who was co-Emperor with his grandfather, he clashed with the latter who excluded him from the succession. The reaction of the young Andronicus was to split the empire into two. With the support of powerful friends, among whom was the future Emperor John Cantacuzenus, he was all-powerful in Thrace and Macedonia, where he established his own state (1321 AD)<sup>1</sup>. In 1322 civil war broke out between him and his grandfather, who led the Byzantine empire from its centre in Constantinople. After numerous clashes and periods of peace and reconciliation, Andronicus III finally invaded Constantinople in 1328 where he assumed power and forced his grandfather's abdication. The new Emperor was distinguished as a good soldier and outstanding politician and

managed to calm the internal situation and strengthen the prestige of the empire abroad<sup>1</sup>.

## ANDRONICUS III'S DISEASE, ACCORDING TO HISTORICAL SOURCES

The first mention of Andronicus III's disease is by Cantacuzenus, who records that in 1321 the Emperor suffered from a continuous 40-day fever with chill<sup>2</sup>. When it ended, he had epistaxis for 12 days continually and, immediately afterwards, quartan fever accompanied by chills for the next 11 months. Because of this illness, as the historian states, the 'splanchna' of the Emperor, and especially the spleen, were seriously affected to the extent that they never recovered<sup>2</sup>. 3 years later, the same author states that the Emperor suffered from a 'new disease' during the threshing of the wheat harvest which obliged him to remain in Thrace for some days; his symptoms are not referred to<sup>2</sup>. Some 8 years later (c. 1329), according to the information of Cantacuzenus and Gregoras, he suffered from a disease which almost caused his death. Gregoras<sup>3</sup> states that

because he did not take preventive measures after a winter bath, the Emperor had pycnosis of all the body which was most clearly located in the head and produced severe pains and confusion of his mind.

Because all medical assistance proved fruitless and the Emperor felt death approaching, following the custom of Christian emperors he demanded a monk's robe and began charitable actions, starting with the pardon and release of prisoners. Later, his condition deteriorated and . . .

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Figure 1 The Emperor Andronicus III Palaeologus (miniature from a fourteenth century manuscript, National Library of Stuttgart, with permission)

no other sign of life was apparent except a faint and brief breathing. His vital organs remained motionless and his limbs became totally paralysed and he appeared dead for two days.

The third day he recovered, as if waking up from deep sleep, and asked for water from the miraculous spring of the Monastery of the Holy Mother. With this water he sprinkled his head. The Emperor recovered, took food and after a few days returned to his original condition<sup>3</sup>.

Cantacuzenus<sup>2</sup> describes the same picture. According to the historian, the Emperor's disease was identified by the physicians as a 'symptom of the head' but despite its cranial location, in its first stages it did not disturb his mental faculties<sup>2</sup>. After a few days, one night 'his pulse ceased completely'<sup>2</sup> and his death was expected. Indeed he asked his physicians only how much time he had left. His upper limbs and generally all his members began slowly to become cold, his voice to fail and 'zotikon' (which means 'pneuma or spiritum vitale' according to Galen<sup>4</sup>) faded. His legs began to show cyanosis as far as the knee, the eyelids to lose their muscularity and droop, his nose to become more sharp and the sides of his temples to sag; generally he showed pre-mortal indications in the opinions of his physicians (the

historian describes the Hippocratic pre-mortal facies<sup>5</sup>). The Emperor then in a low voice, which could hardly be heard, asked for water from the Monastery of the Holy Mother which he drank and then sprinkled. Then he stayed calm, silent and immobile, the only sign of life being his 'supposed' breathing. In the morning his chief physician came and, examining his pulse, thought that it was beating lightly. Because he did not believe this unexpected development, he began to check all the points of pulsation of the body and to examine his members. Surprised he discerned the favourable development of the illness which he attributed to a miracle and called all the other physicians to check the pulses because he still could not believe it. The Emperor continued to recover and until the third hour of the afternoon his pulse could be clearly felt, not very strong, but without arrhythmia. Slowly, with the passing of days he recovered and his health was re-established as a result of a miracle, according to the historian<sup>2</sup>.

The last fatal attack began in 1340, and historians link it to his previous crises. Cantacuzenus writes about a disease which spread through the Byzantine troops during the six-month siege of Arta which was characterized by diarrhoea, fever and headache. The historians state that the Emperor had earlier 'malfunction of the splanchna'. Because of the bad quality of the air (they transfer the Hippocratic conception that the miasma is transmitted through the air) he was severely affected by the disease and so, when Arta was occupied, he was left there to recuperate for some time.

Gregoras<sup>3</sup> also recounts that he suffered from an old disease with many relapses in the past. In 1340 he underwent an acute crisis of the 'usual disease' of the spleen. At this stage, while he was in Salonica, the spleen expanded to a great degree and affected the neighbouring organs, resulting in malnutrition, inactivity of his members and the threat of death. In Gregoras' version the disease subsided a little and he went to Akarnania for the siege of Arta. In the spring, while in Salonica, he went to Didymotichon where he could not remain more than a few days because of the disease of the spleen. Because he realized he was close to death he returned to Constantinople. The physicians who attended him (an unknown number of Byzantines and three Turks) could not provide assistance and were disappointed. They advised him to follow a light diet and avoid psychologically injurious situations but the Emperor, as Gregoras states, did not follow the advice of his physicians and, on the contrary, ate and drank whatever he liked. The result was the greater enlargement of the spleen to such a degree that it reached the area of the liver. This condition did not allow the Emperor much prospect of survival. After staying 20 days in the palace, he went to the Temple of the Holy Mother in the Monastery of Odigos to ask, as usual, for either death or recovery. After the Synod, which was called in the monastery to discuss the matter of the Hesychastic heresy, the Emperor

felt tremendous fatigue from the exhaustion of speaking in the Synod and from the condition of his spleen, as the historian states. The next day he fell into a coma, as the phrases of the historical text indicate ('he fell asleep with anaesthesia of the head'). The third day he had a lucid interval, opened his eyes and asked for the assistance of his physicians. He also sent envoys to the historian Gregoras, who appears to have been occupied with astronomy, to ask whether astrological signs were favourable for his recovery<sup>3</sup>. Astronomers' prophesies on matters of health were common at that time and this remained so until the Renaissance. Before the envoys returned he fell into a deeper coma and died before sunrise on 15 June, aged about 45<sup>3</sup>.

Cantacuzenus<sup>2</sup>, describing the same medical condition, after the Synod of the Monastery of Odigos, provides us with an account of the disease. He indicates that the Emperor had a 'normal fever' at first which the physicians considered to be a result of his anxiety about the disputes in the Synod and his going without food. The second day, the disease was located in the head and the physicians realized that it was a virulent disease which would have a bad outcome. The third day, the disease appeared to recede and the hopes of the physicians were raised. However, at mid-day the same day the disease worsened and on the afternoon of the fourth day his condition deteriorated and he died.

### THE EVALUATION OF THE HISTORICAL TEXTS—MEDICAL CONCLUSIONS

It is extremely difficult to make a definite diagnosis from reports in the mediaeval literature. However, examining all the information provided by these two historians of Byzantium, who also belonged to the Emperor's immediate entourage and thus give us reliable evidence, we conclude that the disease which troubled the Emperor for at least two decades (1321–1341) was in all probability malaria. This disease was prevalent in the area of Evros until around the Second World War. It is well known that from Hellenistic and Roman times the incidence of malaria increased and was a very serious health problem in the Eastern Mediterranean. There are indications that the disease existed in the area from prehistoric times<sup>6</sup>. Indeed Jones attributed the decline of the Hellenistic and Roman world to the spread of malaria<sup>7</sup>. Whether this claim is exaggerated or not, the fact remains that the disease was endemic until recent years in the Greek area and especially in Evros<sup>8</sup>, where the town of Didymotichon is located. Many Emperors seem to have had the disease. John VI Cantacuzenus himself (1347–1354), the later writer of the 'Historia', suffered from tertian fever<sup>9</sup>. Alexius I Comnenus (1081–1118) had quartan fever<sup>9</sup>. There are indications that Constantine the Great (324–337) and his son Constance (337–360) both died of malaria<sup>9</sup>. Beyond the

above epidemiological and historical instances, indications that the fatal disease of Andronicus III was malaria consist of the recurrent attacks and the tremendous enlargement of the spleen which reached the liver (possibly even the enlargement of the liver itself); these features are characteristic of the disease<sup>10–13</sup>. Furthermore, there are detailed descriptions of the crises, from the near fatal cerebral attack in Didymotichon to the final fatal one. Cantacuzenus<sup>2</sup> describes a 40-day continuous fever with chill and epistaxis, possibly due to *Plasmodium falciparum*, although in this form the chill is often absent<sup>12,13</sup>. Another explanation of this continuous fever is that the chronic malaria of the Emperor was due, as usually happens in marshy regions<sup>12,13</sup>, to repeated mixed infections with two or more species of *Plasmodia*. In this case the clinical picture is dominated at first by the consequences of the first *Plasmodium* and later by those of the second. Thus, the paroxysms of the fever are on many occasions daily from the parallel manifestation of quartan (caused by *P. malariae*) and tertian fever<sup>12,13</sup>. The latter is caused by *P. falciparum* (malignant tertian fever) or by *P. vivax* and *P. ovale*. Cantacuzenus<sup>2</sup> states that a new fever followed in the shape of quartan fever with chills. The recurrences of quartan fever lasted 11 months, a course compatible with attack by *P. malariae*<sup>12</sup>. The same historian confirms the tremendous enlargement of the spleen. Splenomegaly, according to classical descriptions of the disease, could reach the navel and even lower<sup>8,12</sup>. The crisis of the disease three years after the first manifestation (1324) may have been a result of infection of *P. falciparum*, which frequently appears at the end of the summer and at the beginning of the autumn<sup>12</sup> (coinciding with threshing of the wheat according to Cantacuzenus). From the descriptions of the repeated attacks of the Emperor we conclude that he had chronic malaria, as a result of mixed infection by several species of *Plasmodia*<sup>12,13</sup>. The well-known malarial cachexia<sup>12,13</sup> explains the 'malnutrition of the Emperor' referred to by Gregoras<sup>3</sup>. The serious episode of cerebral stroke at Didymotichon from which he recovered was probably a result of this malarial infection. The similar mortal episode which resulted in his fatal coma and death was obviously of the same aetiology.

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